

AMENDMENTS TO THE CLAIMS

Please cancel claims 1 to 57 and add the following claims 58 to 92:

58. (New) A communication method for a carrier-sense-multiple-access (CSMA) network including a radio terminal and a base station to which the radio terminal belongs, the communication method supporting request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the communication method comprising:

RTS-transmitting including the base station transmitting a request-to-send (RTS) frame to the radio terminal during a transmission-suspend-period in which the radio terminal suspends transmission to prevent the collision of packets;

RTR-transmitting including the radio terminal transmitting a request-to-receive (RTR) frame to the base station after the transmission-suspend-period has elapsed; and

data-transmitting including the base station transmitting a data frame to the radio terminal in response to the RTR frame.

59. (New) The communication method according to claim 58, further comprising storing including the base station temporarily storing the data frame to be transmitted to the radio terminal.

60. (New) The communication method according to claim 59, wherein the storing includes the base station storing the data frame after the base station transmits the RTS frame to the radio terminal for a predetermined number of times.

61. (New) The communication method according to claim 58, wherein
- when the base station does not receive a clear-to-send (CTS) frame from the radio terminal due to a suspension of the transmission, and when there is another data frame to be transmitted to another radio terminal, the base station performs a communication with the another radio terminal in priority to a communication with the radio terminal, and
- the radio terminal extends the transmission-suspend-period based on a usage period for which the another radio terminal uses a channel.
62. (New) The communication method according to claim 58, wherein when a plurality of base stations or a plurality of other radio terminals transmit a plurality of RTS frames, respectively, to the radio terminal during the transmission-suspend-period, the RTR-transmitting includes the radio terminal transmitting the RTR frame to the base stations or to the other radio terminals sequentially in descending order of priority.
63. (New) The communication method according to claim 58, wherein the data-retransmitting includes
- the base station transmitting a request-to-send (RTS) frame to the radio terminal in response to the RTR frame;
- the radio terminal transmitting a clear-to-send (CTS) frame to the base station in response to the RTS frame;
- the base station retransmitting the data frame to the radio terminal in response to the CTS

frame; and

the radio terminal transmitting an acknowledgement (ACK) frame after having received the data frame.

64. (New) The communication method according to claim 58, wherein the data-retransmitting includes

the base station transmitting the data frame to the radio terminal in response to the RTR frame; and

the radio terminal transmitting an acknowledgement (ACK) frame after having received the data frame.

65. (New) The communication method according to claim 63, wherein another radio terminal, which receives the RTR frame from the radio terminal or communicates with the base station that has received the RTR frame from the radio terminal, suspends transmission to prevent the collision of packets until the data-retransmitting is completed.

66. (New) The communication method according to claim 64, wherein another radio terminal, which receives the RTR frame from the radio terminal or communicates with the base station that has received the RTR frame from the radio terminal, suspends transmission to prevent the collision of packets until the data-retransmitting is completed.

67. (New) A radio terminal employing carrier-sense-multiple-access (CSMA) with request-

to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the radio terminal comprising:

an RTS-receiving unit that receives a request-to-send (RTS) frame from a base station, to which the radio terminal belongs, during a transmission-suspend-period in which the radio terminal suspends transmission to prevent the collision of the packets; and

an RTR-transmitting unit that transmits a request-to-receive (RTR) frame to the base station after the transmission-suspend-period has elapsed.

68. (New) The radio terminal according to claim 67, wherein when the RTS-receiving unit receives a plurality of RTS frames from a plurality of base stations or from a plurality of other radio terminals during the transmission-suspend-period, the RTR-transmitting unit transmits the RTR frame to the base stations or to the other radio terminals sequentially in descending order of priority.

69. (New) The radio terminal according to claim 67, further comprising an extending unit that extends, when the base station performs a communication with another radio terminal in priority to a communication with the radio terminal during the transmission-suspend-period, the transmission-suspend-period, based on a usage period for which the another radio terminal uses a channel.

70. (New) The radio terminal according to claim 67, further comprising:

a CTS-transmitting unit that transmits a clear-to-send (CTS) frame to the base station in

response to another RTS frame that is transmitted from the base station in response to the RTR frame; and

an ACK-transmitting unit that transmits an acknowledgement (ACK) frame to the base station after having received a data frame that is transmitted from the base station in response to the CTS frame.

71. (New) The radio terminal according to claim 67, further comprising an ACK-transmitting unit that transmits an acknowledgement (ACK) frame to the base station after having received a data frame that is transmitted from the base station in response to the RTR frame.

72. (New) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS), the base station comprising:

an RTS-transmitting unit that transmits a request-to-send (RTS) frame to a radio terminal during a transmission-suspend-period in which the radio terminal suspends transmission to prevent a collision of packets;

an RTR-receiving unit that receives a request-to-receive (RTR) frame from the radio terminal after the transmission-suspend-period has elapsed;

an RTS-retransmitting unit that retransmits the RTS frame to the radio terminal in response to the RTR frame; and

a data-transmitting unit that transmits a data frame to the radio terminal in response to a clear-to-send (CTS) frame that is transmitted from the radio terminal in response to the RTS frame retransmitted.

73. (New) The base station according to claim 72, further comprising a buffer that temporarily stores the data frame to be transmitted to the radio terminal.

74. (New) The base station according to claim 73, wherein the buffer stores the data frame after the RTS-transmitting unit transmits the RTS frame to the radio terminal for a predetermined number of times.

75. (New) The base station according to claim 72, wherein when the CTS frame is not transmitted from the radio terminal in response to the RTS frame transmitted due to a suspension of the transmission, and when there is another data frame to be transmitted to another radio terminal, the base station performs a communication with the another radio terminal in priority to a communication with the radio terminal.

76. (New) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS), the base station comprising:

an RTS-transmitting unit that transmits a request-to-send (RTS) frame to a radio terminal during a transmission-suspend-period in which the radio terminal suspends transmission to prevent a collision of packets;

an RTR-receiving unit that receives a request-to-receive (RTR) frame from the radio terminal after the transmission-suspend-period has elapsed; and

a data-transmitting unit that transmits a data frame to the radio terminal in response to the

RTR frame.

77. (New) The base station according to claim 76, further comprising a buffer that temporarily stores the data frame to be transmitted to the radio terminal.

78. (New) The base station according to claim 77, wherein the buffer stores the data frame after the RTS-transmitting unit transmits the RTS frame to the radio terminal for a predetermined number of times.

79. (New) The base station according to claim 76, wherein when a clear-to-send (CTS) frame is not transmitted from the radio terminal in response to the RTS frame transmitted due to a suspension of the transmission, and when there is another data frame to be transmitted to another radio terminal, the base station performs a communication with the another radio terminal in priority to a communication with the radio terminal.

80. (New) A communication method for a carrier-sense-multiple-access (CSMA) network including a radio terminal and a base station to which the radio terminal belongs, the communication method supporting request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the communication method comprising:

RTS-transmitting including the radio terminal transmitting a request-to-send (RTS) frame to the base station during a transmission-suspend-period in which the base station suspends transmission to prevent the collision of packets or due to an interference;

RTR-transmitting including the base station transmitting a request-to-receive (RTR) frame to the radio terminal after the transmission-suspend-period has elapsed; and

data-transmitting including the radio terminal transmitting a data frame to the base station in response to the RTR frame.

81. (New) The communication method according to claim 80, further comprising storing including the radio terminal temporarily storing the data frame to be transmitted to the base station.

82. (New) The communication method according to claim 81, wherein the storing includes the radio terminal storing the data frame after the radio terminal transmits the RTS frame to the base station for a predetermined number of times.

83. (New) The communication method according to claim 80, wherein when the radio terminal does not receive a clear-to-send (CTS) frame from the base station due to a suspension of the transmission, and when there is another data frame to be transmitted to another base station or to another radio terminal, the radio terminal performs a communication with the another base station or with the another radio terminal in priority to a communication with the base station, and

the base station extends the transmission-suspend-period based on a usage period for which the another base station or the another radio terminal uses a channel.

84. (New) The communication method according to claim 80, wherein when a plurality of other base stations or a plurality of radio terminals transmit a plurality of RTS frames, respectively, to the base station during the transmission-suspend-period, the RTR-transmitting includes the base station transmitting the RTR frame to the other base stations or to the radio terminals sequentially in descending order of priority.

85. (New) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the base station comprising:

an RTS-receiving unit that receives a request-to-send (RTS) frame from a radio terminal belonging to the base station during a transmission-suspend-period in which the base station suspends transmission to prevent the collision of the packets or due to an interference; and

an RTR-transmitting unit that transmits a request-to-receive (RTR) frame to the radio terminal after the transmission-suspend-period has elapsed.

86. (New) The base station according to claim 85, wherein when the RTS-receiving unit receives a plurality of RTS frames from a plurality of other base stations or from a plurality of radio terminals during the transmission-suspend-period, the RTR-transmitting unit transmits the RTR frame to the other base stations or to the radio terminals sequentially in descending order of priority.

87. (New) A communication method for a carrier-sense-multiple-access (CSMA) network

including a radio terminal, a first base station, and a second base station, the communication method supporting request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the communication method comprising:

transmitting including the second base station transmitting a frame for communication between base stations to the first base station during a transmission-suspend-period in which the first base station suspends transmission to prevent the collision of packets or due to an interference;

transmitting including the first base station transmitting a request-to-receive (RTR) frame to the second base station after the transmission-suspend-period has elapsed; and

transmitting including the second base station transmitting a data frame to the first base station in response to the RTR frame.

88. (New) The communication method according to claim 87, further comprising storing including the second base station temporarily storing the data frame to be transmitted to the first base station.

89. The communication method according to claim 88, wherein the storing includes the second base station storing the data frame after the second base station transmits the frame for communication between base stations to the first base station for a predetermined number of times.

90. (New) The communication method according to claim 87, wherein

when the second base station does not receive a response to the frame for communication between base stations from the first base station due to a suspension of the transmission, and when there is another data frame to be transmitted to a third base station or to the radio terminal, the second base station performs a communication with the third base station or with the radio terminal in priority to a communication with the first base station, and

the first base station extends the transmission-suspend-period based on a usage period for which the third base station or the radio terminal uses a channel.

91. (New) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the base station comprising:

a receiving unit that receives a frame for communication between base stations from another base station during a transmission-suspend-period in which the base station suspends transmission to prevent the collision of the packets or due to an interference; and

a transmitting unit that transmits a request-to-receive (RTR) frame to the another base station after the transmission-suspend-period has elapsed.

92. (New) The base station according to claim 91, wherein when the receiving unit receives a plurality of frames for communication between base stations from a plurality of other base stations during the transmission-suspend-period, the transmitting unit transmits the RTR frame to the other base stations sequentially in descending order of priority.